Ei Electronics®
fire + gas detection

i-control®

RadioLINK®

Alarm Controller

Fire and CO

Model: Ei450

Instruction Manual

Read and retain carefully for as long as the product is being used. It contains vital information on the operation and installation of your Smoke Alarm. The leaflet should be regarded as part of the product.
If you are just installing the unit, the leaftet must be given to the householder. The leaflet is to be given to any subsequent user.

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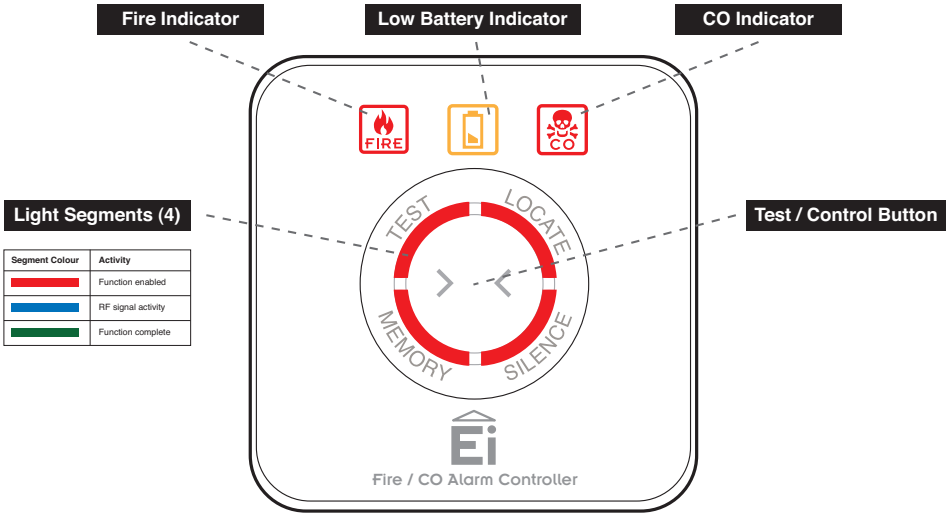
1. Overview

Congratulations on purchasing the Ei450 single button alarm controller for RadioLINK Fire and Carbon Monoxide (CO) Alarm systems. The Ei450 tests and controls fire, CO and hybrid (Fire + CO) RadioLINK Alarm systems.

Ei450 i-controller functionality

Function	Description
Remote Test	All the Alarms can be tested from a centralised location
Remote Locate	This will silence all the Alarms in the system except the one sensing Fire or CO
Remote Silence	This will silence all the Alarms in the system
Fire Indicator	Indicates a that a Fire Alarm has been activated
CO Indicator	Indicates a that a CO Alarm has been activated
EOL Indicator	Indicates that the battery has reached its end of life (EOL)
Memory	Indicates if a Fire or CO Alarm has been previously activated
Memory ID	Identifies the Alarm that has previously been activated

Some older revisions of our RadioLINK modules do not support the Memory ID function. Check this page on our website for a complete and accurate list of products that support this function.



Segment Colour	Activity
	Function enabled
	RF signal activity
	Function complete

Wireless Smoke Alarm System

RF Smoke Alarm

RF Smoke Alarm

RF Smoke Alarm

Alarm Controller

Wireless Smoke & Carbon Monoxide Alarm System

RF CO Alarm

RF Smoke Alarm

RF Smoke Alarm

Alarm Controller

Works with

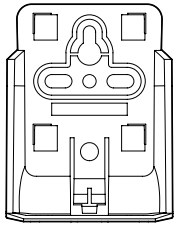
Model No. - Alarms	Comment
Ei160RC & Ei2110 Series Smoke Alarms	The Alarms must be fitted on Ei168RC RadioLINK bases
Ei262 Mains Carbon Monoxide Alarms	The Ei262 has built-in RadioLINK technology
Ei605 & Ei650 Series Smoke Alarms	The Alarms must be fitted with the appropriate Ei605 series RadioLINK module
Ei208 Battery Powered Carbon Monoxide Alarms	The Alarms must be fitted with Ei200MRF RadioLINK modules
Ei170RF	Deaf Alarm Strobe and Vibration Pad

For most up to date works with list check webpage www.eielectronics.com/articles/ei450-memory-id-products.html

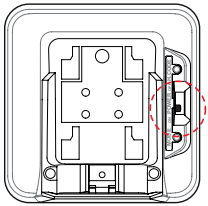
2. Installation

Install the Ei450 mounting plate at an accessible point on the wall 1.4M +/- 200mm from floor level. If it intended for a disabled person to operate the controller, an alternative mounting location should be considered.

Also consider security and chose a location where it will not be accidently or otherwise operated.



Turn on the system by sliding the switch to the on position.

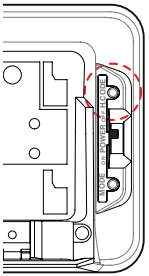


Check the power up sequence

- Fire, Battery & CO icons flash
- Each individual segment lights up red
- Each individual segment lights blue
- Each individual segment lights green
- All lights are off to indicate standby mode

All RadioLINK devices, Smoke Alarms, CO Alarms, control switches, etc. in the system must be put into house code. For instructions on how to house code the Ei450 controller, see the “House Code” section of this manual.
For instructions on house coding the other devices please refer to their individual manuals.

Repeat this procedure for all Alarms and RadioLINK devices in the system.

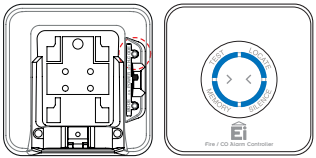


3. House Coding

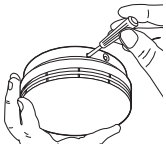
It is essential to House Code the Ei450 i-controller to all the other RadioLINK Alarms and devices in the system to ensure they will not communicate with nearby systems. Failure to house code the system may also result in a system malfunction.

WARNING

Press and hold the House Code switch on the back of the controller until all segments light up blue, then release. The segments will flash rapidly for a moment on entering house code (H CODE).



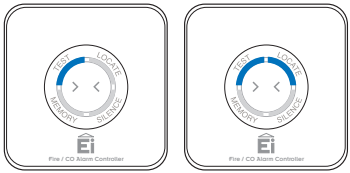
House code all other RadioLINK Alarms and accessories in the system. Consult the instruction manuals on how to house code these devices.



Return to the Ei450 i-controller and check that all 4 segments (ring) are flashing blue. The number of flashes should equal the number of RadioLINK devices in the system. A system with 3 smoke alarms, one CO alarm and the i-controller will result in five blue flashes.

The flash pattern will repeat every 5 to 10 seconds while the i-controller remains in house code.

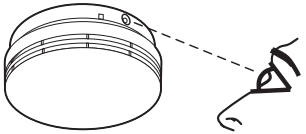
If it fails to flash the correct number of times, then consult the "Troubleshooting the RF link" section of this instruction manual.



Now, walk around the house to verify that all the other RadioLINK Alarms and RadioLINK devices are giving the correct amount of flashes.

If any of these fail to flash the correct number of times, then consult the "Troubleshooting the RF link" section of this instruction manual.

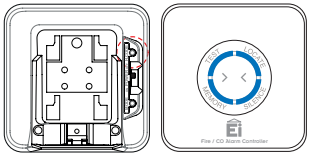
To complete the commissioning, the system must exit house code mode.



The units will automatically exit house code after 30 minutes. Once coded the system will not communicate with any other RadioLINK devices outside the house coded group.

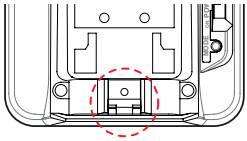
To manually exit house code press the house code button on the back of the Ei450 switch. When all the segments light up blue, release the button. This unit will then send a “Cancel” signal to all the other RadioLINK devices to exit House code.

After a short period the blue light will turn off and the system will return to standby mode (normal). Depending on the number of Alarms and RadioLINK devices in the system this period could vary from 5 to 20 Seconds.

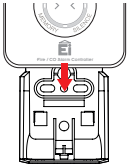


If you choose to make the switch tamper proof remove the pip (plastic post) using a pliers or similar tool.

Do not do this until the house coding procedure has been completed!



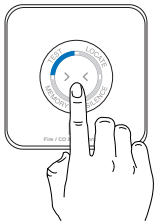
Slide the Ei450 onto the mounting base on the wall.



Check that the RadioLINK system is working by pressing the button on the Ei450 i-controller until the TEST segment lights blue. This indicates a RadioLINK test signal has been activated.

All the Alarms in the system will sound for a short period and then stop.

If the test fails go to Troubleshooting the RF link section.

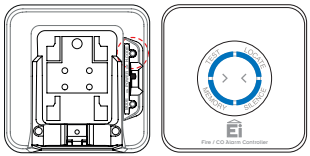


Reset the house code

Sometimes in order to resolve an RF communication issue, e.g. Alarms had to be relocated, it may necessary to reset and house code the system again.

To reset the Ei450 i-controller press and hold the house code switch. All segments will flash blue briefly and then go solid. After 5 seconds approx. the segments will start flashing blue. At this point release the house code switch. The Ei450 has now been reset.

To reset the other Alarms and accessories in the system consult the appropriate instruction manuals.



4. Operation

Frequent testing of the system is advised to ensure its continued and safe operation. Guidelines and best practices for testing are as follows:

1. After the system is installed.
2. Once weekly thereafter.
3. After prolonged absence from the dwelling (.e.g. after holiday period).
4. After repair or servicing of any of the systems elements or household electrical works.

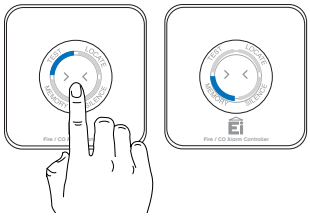
WARNING

Testing the alarm system

Press the button on the Ei450 i-controller until the TEST segment lights up blue. Release the button.

All Alarms in the system will sound for a short period and then stop.

If the MEMORY segment lights up blue instead of the TEST it means that a CO or Fire alarm was previously activated. See the fire and CO memory sections and report the incident to the appropriate authorities.



When the alarm system sounds

If there is a fire, immediately evacuate the premises and telephone the fire brigade.

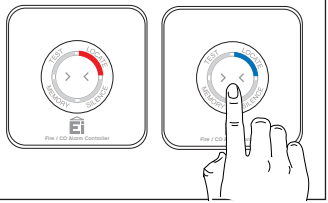
If the source of the alarm is not obvious go to the Ei450 i-controller and check to see which indicator is illuminated, Fire or CO.

If the CO indicator is flashing, open doors & windows while evacuating the premises. Telephone the appropriate authorities to report the incident.

Locate the source Alarm(s)

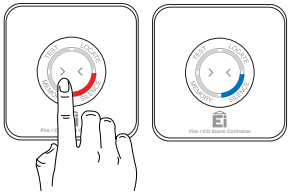
If the fire indicator is lighting and there is no obvious fire, press the button. The LOCATE segment will change from red to blue.

After a 10 to 40 seconds period, all the Alarms in the system will stop sounding except the source Alarm(s).



If you are satisfied there is no fire but the Smoke/Heat Alarm is still continuing to alarm you may now silence the system.

Wait until the SILENCE segment is flashing red and then press the button. The SILENCE segment will turn blue, the Alarm(s) will stop sounding and all segments on the controller will flash green momentarily to indicate that the Controller is back in standby. The Alarms in the system will be silenced for the next 10 minutes.

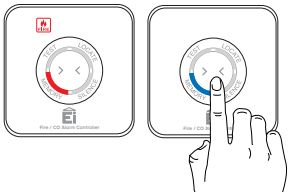


Fire Memory

The fire memory feature enables the identification of a fire Alarm that has previously been activated, e.g. one that false alarmed when the house was not occupied.

1. After the Alarm deactivates, the Fire indicator will flash alternatively with the MEMORY segment (red) for 2 minutes and then stop.

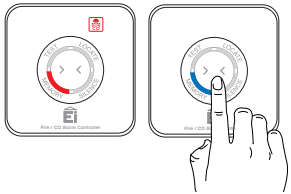
2. To recall the memory press the button, the MEMORY segment will light blue and the source alarm will sound briefly and stop several times.



3. To reactivate the memory feature press and hold the button briefly while the FIRE Icon is still flashing. This reactivation can be repeated indefinitely. If the button is not pressed the memory recall will timeout in 10 seconds.

4. When the FIRE icon stops flashing, the memory recall is complete, the Alarm will stop sounding and the Alarm controller will return to standby with all segments extinguished.
5. The memory is now erased and pressing the button again will perform a normal test.

CO Memory



The CO memory feature enables the identification of a CO Alarm that has previously been activated, e.g. a CO incident while the house was not occupied.

1. After the Alarm deactivates, the CO indicator will flash alternatively with the MEMORY segment (red) for 2 minutes and then stop. For the next 24h hours they will flash alternatively once a minute.
2. To recall the memory press the button, the MEMORY segment will light blue and the source alarm will sound briefly and stop. Depending on the number of alarms in the system the source alarm will sound and stop a number of times.
3. To reactivate the memory feature press and hold the button briefly while the CO Icon is still flashing. This reactivation can be repeated indefinitely as long as the icon is still flashing. If the button is not pressed the memory recall will timeout in 10 seconds.
4. When CO icon stops flashing, the memory recall is complete, the Alarm will stop sounding and the Alarm controller will return to standby with all segments extinguished.
5. The memory is now erased and pressing the button again will perform a normal test.

5. System Diagnostics

The system diagnostic features are intended to assist professional installation and maintenance personal to install, commission and maintain the RadioLINK fire and control systems utilising the Ei450 i-controller.

These features are not intended for the home owner / tenant and should only be used by personnel described above.

WARNING

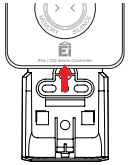
The alarm identification test only works with some RadioLINK Alarms. To check the current list of Alarms supported or for additional maintenance and diagnostic information please go to this webpage

www.eielectronics.com/articles/ei450-memory-id-products.html

Alternatively use your smart phone to capture this QR code and download the page immediately.

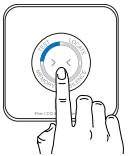
Remote Testing – Walk round test (optional)

Remove the Ei450 controller from its cradle. If the unit has been tamper proofed you will need to release the latch with a screwdriver.



With the Ei450 in your hand press and hold the button. Walk around the house and verify that each Alarm is sounding. When testing is complete release the button and replace the controller in its cradle.

If the test fails go to Troubleshooting the RF link section.

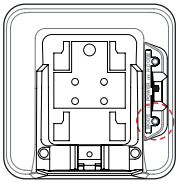


System Diagnostic Mode

A special system diagnostic mode will facilitate the following special tests.

1. Two minute “Long Test”. This is an alternative to the walk round test described previously.
2. Identify any Alarm that been previously activated.

The procedure is used to manually exit the diagnostic. If there has been 2 minutes of inactivity the alarm controller will automatically exit the diagnostic mode.



Enter and Exit diagnostic mode

To enter the system diagnostic mode use a small screwdriver to press and release the MODE button on the back of the unit. All segments will flash green to indicate that the diagnostic mode has been activated.

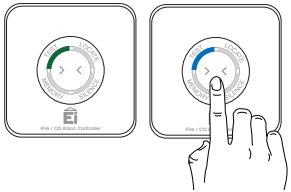
Two minute - Long Test

On entering the system diagnostic mode the TEST segment will flash green inviting you to press the button.

When you press the button the segment will turn blue and all the Alarms in the system will sound for 2 minutes.

This will allow you to walk around the house and verify that each individual Alarm is sounding.

The test will automatically cease after 2 minutes or if the button is pressed again.



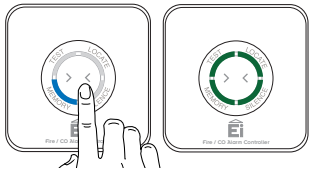
Alarm Identification Test

If an alarm memory has been set the TEST and MEMORY segments will flash green alternatively after entering the system diagnostics mode.

While the MEMORY segment is illuminated press the button until the MEMORY segment goes blue.

This will then locate the Alarm that was previously active and cause it to sound for a number of seconds (depending on the number of RadioLINK devices in the system).

Pressing the button again will cause it to sound again. This allows you to walk around the house until you have found the active Alarm. All segments will flash green.

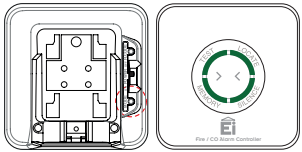


The i-controller will automatically exit the alarm identification test after 2 minutes or if the system diagnostic button is pressed again.

Erase alarm memory

Press and hold the MODE switch on the back of the unit. The green segments will light up. When these segments start flashing, release the button. The memory identification is now cleared.

To erase the alarm identification memory press and hold the MODE button on the back of the alarm for about 6 seconds until all the segments flash green. The memory identification has now been erased.



6. Guarantee

Ei Electronics guarantees the (‘Model Ei450’) for 5 years from date of purchase against any defects that are due to faulty materials or workmanship. This guarantee excludes replaceable batteries.

This guarantee only applies to normal conditions of use and service and does not include damage resulting from accident, neglect, misuse, unauthorised dismantling, or contamination howsoever caused. This guarantee excludes incidental and consequential damage.

This guarantee does not cover costs associated with the removal and/or installation of units.

If the product should become defective within the guarantee period, it may be returned with proof of purchase, carefully packaged, and with the problem clearly stated to the place of purchase or phone one of these numbers for advice.

UK: 0870 758 4001 ROI: +353 61 471277

We shall at our discretion repair or replace the faulty unit.

7. Troubleshooting the RadioLINK

If, when checking the RadioLINK interconnection, some of the Alarms do not respond to the Ei450 remote control test, then:

(i) Ensure the Ei450 controller has been activated correctly. Check that the power on procedure operates as described in the installation section.

(ii) Repeat House Code procedure (see section 2).

(iii) Relocate the Ei450 controller and/or rotate/relocate the RadioLINK Alarms. There are a number of reasons why the RadioLINK signals may not reach all the Alarms in your system (see section 6 on “Limitations of Radio Frequency Signals”). Try rotating the units or relocating the units (e.g. move them away from metal surfaces or wiring) as this can significantly improve signal reception.

Rotating and/or relocating the units may move them out of the range of existing units even though they may have already been House Coded correctly in the system. It is therefore important to check that all Alarms are communicating in their final installed positions. If units are rotated and/or relocated, we recommend that all units are returned to the factory settings (see the respective use and care instructions).Then House Code all units again in their final positions. The RadioLINK interconnection should then be checked again.

8. Limitations of Radio Communications

Ei Electronics radio communication systems are very reliable and are tested to high standards. However, due to their low transmitting power and limited range (required by regulatory bodies) there are some limitations to be considered:

(i) Radio equipment, such as the Ei450 controller, should be tested regularly - at least weekly. This is to determine whether there are sources of interference preventing communication. The radio paths may be disrupted by moving furniture or renovations, and so regular testing will help identify these and other faults, so that they can be rectified (see Section 5).

(ii) Receivers may be blocked by radio signals occurring on or near their operating frequencies, regardless of the House Coding. The Ei450 i-controller has been tested to EN 300 220-1 V1.3.1 (2000-09) in accordance with the requirements of EN 300 220V1.1.1 (2000-09). These tests are designed to provide reasonable protection against harmful interference in residential installations. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause interference to radio and/or television reception.

However, there is no guarantee that interference will not occur in a particular installation. If the Ei450 controller does cause such interference, it can be verified by turning it on and off.

The user is encouraged to eliminate the interference by one or more of the following measures:
(i) Re-orientate or re-locate the unit.
(ii) Increase the distance between the Ei450 and the device being affected.
(iii) Consult the supplier or an experienced radio/television technician.

9. Technical Specification

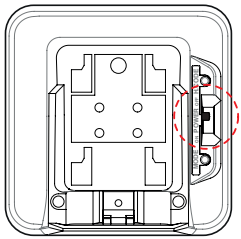
Supply Voltage	Powered for life Lithium battery
Battery Capacity	1600 mAh
RF Frequency	868.499Mhz
Temp Range	0ºC to 40ºC (Cat 3)
Humidity	15% - 95% (Non Condensing)
Receiver Category	Cat 2
RF Performance	EN 300-220
EMC Performance	EN 301-489
RF Power	+7dBm
Range	150 meters in free space
Number of RF interconnected Alarms	12 per house code group*

*Note: For applications with greater than 12 Alarms please contact technical support for guidance.

10. Getting the Ei450 serviced

If your Ei450 fails to work after you have carefully read all the instructions and checked that the unit has been installed correctly contact Customer Assistance at the nearest address given at the end of this leaflet.

If it needs to be returned for repair or replacement, slide the switch to the off position, place it in a padded box and send it to “Customer Assistance and Information” at the nearest address given on the unit or in this leaflet.



State the nature of the fault, where the controller was purchased and the date of purchase.

The crossed out wheelie bin symbol that is on your product indicates that this product should not be disposed of via the normal household waste stream. Proper disposal will prevent possible harm to the environment or to human health. When disposing of this product please separate it from other waste streams to ensure that it can be recycled in an environmentally sound manner. For more details on collection and proper disposal, please contact your local government office or the retailer where you purchased this product.

CE
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Aico Ltd
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